

CBSE CLASS X

Artificial Intelligence (417)

QUESTION PAPER

From previous CBSE Board Exam questions

Code: X3Y6ZJ

Questions: 22

Maximum Marks: 31

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SELECTIONS USED

Source	Previous-year board
Subject	Artificial Intelligence
Lessons	Computer Vision
Year	2022-2026
Questions selected	22

Composition — Types: 12 MCQ · 7 Short · 2 Assertion–reason · 1 Long

Q1. § 5.1 Applications of Computer Vision

[1]

The Face Filter feature in Instagram is an application of _____.

- (A) NLP
- (B) Computer Vision
- (C) Data Science
- (D) Blockchain Technology

Previously asked in: 2025 104/S Q5 (iii)

♦ Computer Vision 5.2 Computer Vision Tasks

Q2. § Test Yourself

[1]

Assertion (A) : The less pixels you have, the better is the image quality.

Reason (R) : Resolution refers to the number of pixels per unit of area in an image, determining its clarity and detail.

- (A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
- (B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
- (C) Assertion (A) is true, but Reason (R) is false.
- (D) Assertion (A) is false, but Reason (R) is true.

Previously asked in: 2025 104/S Q5 (vi)

♦ Computer Vision 5.4 Image Features

Q3. § 5.2 Computer Vision Tasks § Test Yourself

[1]

What does the term "image processing" refer to in Computer Vision ?

- (A) Editing videos
- (B) Extracting meaningful information from images
- (C) Playing audio files
- (D) Compiling codes

Previously asked in: 2024 104 Q2 (v)

♦ Computer Vision 5.2 Computer Vision Tasks

Q4. § 5.2 Computer Vision Tasks**[1]**

In Computer Vision, which of the following tasks is used for single object ?

- (A) Object Detection
- (B) Classification + Localization
- (C) Instance Segmentation
- (D) Non-Localization

Previously asked in: 2024 104 Q3 (iii)

♦ Computer Vision

5.2 Computer Vision Tasks

Q5. § 5.2 Computer Vision Tasks**[2]**

Name the tasks used in Computer Vision applications for :

- (a) Single objects
- (b) Multiple objects

Previously asked in: 2025 104/S Q16

♦ Computer Vision

5.2 Computer Vision Tasks

Q6. § Unit Introduction and Objectives § 5.1 Applications of Computer Vision § 5.2 Computer Vision Tasks**[1]**

Statement 1 : Various search engines and e-commerce portals now have a new feature called image-based search using computer vision.

Statement 2 : Image-based search helps in finding items, people and places by giving their sounds to the system.

- (A) Both Statement 1 and Statement 2 are correct.
 - (B) Both Statement 1 and Statement 2 are incorrect.
 - (C) Statement 1 is correct but Statement 2 is incorrect.
 - (D) Statement 2 is correct but Statement 1 is incorrect.
- (A) Both Statement 1 and Statement 2 are correct.
 - (B) Both Statement 1 and Statement 2 are incorrect.
 - (C) Statement 1 is correct but Statement 2 is incorrect.
 - (D) Statement 2 is correct but Statement 1 is incorrect.

Previously asked in: 2024 104 Q5 (iii)

♦ Computer Vision

5.2 Computer Vision Tasks

Q7. § 5.2 Computer Vision Tasks § 5.3 No-Code AI Tools**[1]**

Anita and Surjit are creating an AI application that will classify different types of fruits. The Computer Vision task that will identify the type of fruit and assign a label to it is called _____.

- (A) Segmentation
- (B) Classification
- (C) Classification + Localization
- (D) Object Detection

Previously asked in: 2026 104 Q2 (i)

♦ Computer Vision

5.2 Computer Vision Tasks

Q8. § 5.2 Computer Vision Tasks

[1]

In computer vision which of the following tasks is used for multiple objects ?

- (a) Classification
- (b) Classification + Localisation
- (c) Instance Segmentation
- (d) Localisation

Previously asked in: 2024 104 Q3 (iv)

♦ Computer Vision

5.2 Computer Vision Tasks

Q9. § 5.2 Computer Vision Tasks

[2]

Differentiate between Computer Vision (CV) and Natural Language Processing (NLP).

Previously asked in: 2024 104 Q11

♦ Computer Vision

5.2 Computer Vision Tasks

6.2 Applications of NLP

Q10. § Unit Introduction and Objectives § 5.1 Applications of Computer Vision § Test Yourself

[2]

Give any two key impacts of Computer Vision on medical imaging.

Previously asked in: 2024 104 Q14

♦ Computer Vision

5.2 Computer Vision Tasks

Q11. § 5.5 Convolution

[1]

What is the range of possible pixel values in a byte image format ?

- (A) 0 to 100
- (B) 0 to 255
- (C) 1 to 256
- (D) -128 to 127

Previously asked in: 2026 104 Q3 (ii)

♦ Computer Vision

5.4 Image Features

Q12. § Test Yourself

[1]

Assertion (A) : The term used to refer to the number of pixels in an image is resolution.

Reason (R) : Resolution in an image denotes the total number of pixels it contains, usually represented as height × width.

- (a) Both (A) and (R) are true and (R) is the correct explanation for (A).
- (b) Both (A) and (R) are true and (R) is not the correct explanation for (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is true.

Previously asked in: 2024 104 Q5 (i)

♦ Computer Vision

5.4 Image Features

Q13. § 5.1 Applications of Computer Vision

[1]

The concept of _____ is used to apply face filters on various social media platforms.

- (a) NLP
- (b) Computer Vision
- (c) Data Science
- (d) Block chain Technology

Previously asked in: 2024 104 Q5 (iv)

♦ Computer Vision

5.2 Computer Vision Tasks

Q14. § Test Yourself**[1]**

Which of the following best describes the relationship between pixels and image resolution ?

- (A) More pixels result in lower image quality.
- (B) Pixels and resolution are unrelated concepts.
- (C) Resolution depends only on image file size.
- (D) The number of pixels in an image is known as resolution.

Previously asked in: 2026 104 Q4 (iv)

♦ Computer Vision

5.4 Image Features

Q15. § 5.2 Computer Vision Tasks § Test Yourself**[1]**

In the context of Computer Vision vs Image Processing, which statement correctly differentiates them ?

- (A) Computer Vision and Image Processing are exactly the same.
- (B) Computer Vision enhances the image while Image Processing does not.
- (C) Computer Vision is a superset of Image Processing.
- (D) Image Processing is a superset of Computer Vision.

Previously asked in: 2026 104 Q5 (iii)

♦ Computer Vision

5.2 Computer Vision Tasks

Q16. § Reflection Time**[2]**

Differentiate between grayscale and RGB images.

Previously asked in: 2024 104 Q16

♦ Computer Vision

5.1 Introduction

Q17. § 5.2 Computer Vision Tasks**[1]**

Which computer vision task involves both identifying what object is present in an image and determining the precise location of that object within the image?

- (A) Image Classification
- (B) Object Detection
- (C) Instance Segmentation
- (D) Classification + Localisation

Previously asked in: 2025 104/S Q3 (iv)

♦ Computer Vision

5.2 Computer Vision Tasks

Q18. § 5.5 Convolution § Reflection Time**[2]**

How do computers store RGB images ?

Previously asked in: 2026 104 Q13

♦ Computer Vision

5.4 Image Features

Q19.**[1]**

Which of the following is the correct expansion of CSV ?

- (A) Comma and Space Value
- (B) Comma Separated Values
- (C) Control Separated Values
- (D) Character Separated Values

Previously asked in: 2024 104 Q4 (i)

♦ Computer Vision

CSV (Comma-Separated Values) File Format

Q20. § 5.3 No-Code AI Tools**[1]**

With reference to AI domain, expand the term CV.

Previously asked in: 2023 104 Q4 (iv)

♦ **Computer Vision** Introduction to Computer Vision (CV) – Expansion of the term

Q21. § 5.6 Convolution Neural Networks (CNN)**[4]**

Answer the following:

(A) Expand and define the terms CNN and ANN. [3]

(B) In the diagram of neural network given below, identify the layer that should be depicted in Box 1 and Box 2: [1]

Previously asked in: 2026 104 Q20

♦ **Computer Vision** 2.3 Artificial Neural Networks 5.6 Convolution Neural Networks (CNN)

Q22. § 5.1 Applications of Computer Vision**[2]**

Face lock feature of a smartphone is an example of computer vision. Briefly discuss this feature.

Previously asked in: 2023 104 Q15

♦ **Computer Vision** 5.2 Computer Vision Tasks 5.4 Image Features 5.6 Convolution Neural Networks (CNN)

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